

Amendments

Sequence Listing:

NE
14-17-01
Please delete the sequence listing as originally filed and substitute therefore the substitute sequence listing filed herewith.

In the claims:

✓ Please cancel claims 1-37.

Please add claims 38-96 as shown below.

38. An isolated polynucleotide comprising a nucleotide sequence that encodes a polypeptide having an amino acid sequence that comprises positions 229-547 of SEQ ID NO: 2.

39. An isolated polynucleotide according to claim 38, comprising a nucleotide sequence set forth in positions 739-1695 of SEQ ID NO: 1.

40. An isolated polynucleotide according to claim 38, comprising a nucleotide sequence set forth in positions 739-2024 of SEQ ID NO: 1.

41. An isolated polynucleotide according to claim 38 wherein the amino acid sequence comprises positions 206-547 of SEQ ID NO: 2.

42. An isolated polynucleotide according to claim 41, comprising a nucleotide sequence set forth in positions 670-1695 of SEQ ID NO: 1.

43. An isolated polynucleotide according to claim 41, comprising a nucleotide sequence set forth in positions 670-2024 of SEQ ID NO: 1.

44. The polynucleotide according to claim 38, wherein said amino acid sequence comprises positions 226-547 of SEQ ID NO: 2.

45. An isolated polynucleotide according to claim 44, comprising a nucleotide sequence set forth in positions 730-1695 of SEQ ID NO: 1.

46. An isolated polynucleotide according to claim 44, comprising a nucleotide sequence set forth in positions 730-2024 of SEQ ID NO: 1.

47. The polynucleotide according to claim 38, wherein said amino acid sequence comprises positions 211-547 of SEQ ID NO: 2.

48. An isolated polynucleotide according to claim 47, comprising a nucleotide sequence set forth in positions 685-1695 of SEQ ID NO: 1.

49. An isolated polynucleotide according to claim 47, comprising a nucleotide sequence set forth in positions 685-2024 of SEQ ID NO: 1.

50. The polynucleotide according to claim 38, wherein said amino acid sequence comprises an amino acid sequence selected from the group consisting of: positions 102-547 of SEQ ID NO: 2; positions 91-547 of SEQ ID NO: 2; positions 9-547 of SEQ ID NO: 2; and positions 1-547 of SEQ ID NO: 2.

51. An isolated polynucleotide according to claim 38, comprising a nucleotide sequence selected from the group consisting of: positions 358-1695 of SEQ ID NO: 1; positions 325-1695 of SEQ ID NO: 1; positions 79-1695 of SEQ ID NO: 1; positions 55-1695 of SEQ ID NO: 1; and positions 1-1695 of SEQ ID NO: 1.

52. An isolated polynucleotide according to claim 38, comprising a nucleotide sequence selected from the group consisting of: positions 358-2024 of SEQ ID NO: 1;

positions 325-2024 of SEQ ID NO: 1; positions 79-2024 of SEQ ID NO: 1; positions 55-2024 of SEQ ID NO: 1; and positions 1-2024 of SEQ ID NO: 1.

53. An isolated polynucleotide encoding a collectin, which hybridizes under stringent conditions with a probe that is an amplification product from a PCR reaction performed using primers having the following nucleotide sequences:
caatctgatgagaaggtgatg (SEQ ID NO: 4) and acgaggggctggatgggacat (SEQ ID NO: 5).

54. An isolated nucleic acid which can hybridize under stringent conditions with the polynucleotide according to claim 38, wherein the nucleic acid encodes a collectin which comprises a Ca^{2+} -dependent carbohydrate recognition domain (CRD), and a collagen-like region.

55. An isolated nucleic acid which can hybridize under stringent conditions with the polynucleotide according to claim 39, wherein the nucleic acid encodes a collectin which comprises a Ca^{2+} -dependent carbohydrate recognition domain (CRD), and a collagen-like region.

56. An isolated nucleic acid which can hybridize under stringent conditions with the polynucleotide according to claim 51, wherein the nucleic acid encodes a collectin which comprises a Ca^{2+} -dependent carbohydrate recognition domain (CRD), and a collagen-like region.

57. The polynucleotide according to claim 38, wherein said polynucleotide is cDNA.

58. An isolated collectin polypeptide comprising the amino acid sequence encoded by the polynucleotide according to claim 53.

59. An isolated collectin polypeptide comprising the amino acid sequence encoded by the polynucleotide according to claim 54.

60. An isolated collectin polypeptide comprising the amino acid sequence encoded by the polynucleotide according to claim 56.

61. An isolated collectin polypeptide comprising an amino acid sequence set forth in positions 229-547 of SEQ ID NO: 2.

62. An isolated collectin polypeptide according to claim 61 comprising an amino acid sequence set forth in positions 206-547 of SEQ ID NO: 2.

63. The collectin polypeptide according to claim 61, wherein said amino acid sequence comprises positions 226-547 of SEQ ID NO: 2.

64. The collectin polypeptide according to claim 61, wherein said amino acid sequence comprises positions 211-547 of SEQ ID NO: 2.

65. The collectin polypeptide according to claim 61, wherein said amino acid sequence comprises a sequence selected from the group consisting of: positions 102-547 of SEQ ID NO: 2, positions 91-547 of SEQ ID NO: 2, positions 9-547 of SEQ ID NO: 2, and positions 1-547 of SEQ ID NO: 2.

66. An isolated human collectin polypeptide according to claim 58.

67. An isolated human collectin polypeptide according to claim 59.

68. An isolated human collectin polypeptide according to claim 60.

69. An isolated human collectin polypeptide according to claim 61.

70. The collectin according to claim 61 that comprises deletion, substitution and/or addition of one or more amino acids in the amino acid sequence and that comprises a Ca^{2+} -dependent carbohydrate recognition domain (CRD) and a collagen-like region.

71. A vector which comprises the polynucleotide according to claim 38 and that allows the expression of the amino acid sequence encoded by the polynucleotide.

72. A vector which comprises the polynucleotide according to claim 50 and that allows the expression of the amino acid sequence encoded by the polynucleotide.

73. A vector which comprises the polynucleotide according to claim 53 and that allows the expression of the collectin encoded by the polynucleotide.

74. A vector which comprises the nucleic acid according to claim 55 and that allows the expression of the collectin encoded by the polynucleotide.

75. A vector which comprises the nucleic acid according to claim 56 and that allows the expression of the collectin encoded by the polynucleotide.

76. A host cell comprising the vector according to claim 71 that expresses the amino acid sequence encoded by the polynucleotide.

77. A host cell comprising the vector according to claim 72 that expresses the amino acid sequence encoded by the polynucleotide.

78. A host cell comprising the vector according to claim 73 that expresses the collectin.

79. A host cell comprising the vector according to claim 74 that expresses the collectin.

80. A host cell comprising the vector according to claim 75 that expresses the collectin.

81. A probe for screening for a collectin homolog comprising the polynucleotide according to claim 38 or a fragment thereof.

82. An antibody having specific immunoreactivity with a polypeptide comprising an amino acid sequence selected from the group consisting of: positions 229-547 of SEQ ID NO: 2; positions 226-547 of SEQ ID NO: 2; positions 211-547 of SEQ ID NO: 2; positions 206-547 of SEQ ID NO: 2; positions 102-547 of SEQ ID NO: 2; positions 91-547 of SEQ ID NO: 2; positions 9-547 of SEQ ID NO: 2; and positions 1-547 of SEQ ID NO: 2.

83. The antibody according to claim 82 which is a monoclonal antibody.

84. The antibody according to claim 82 having reduced immunogenicity to a human.

85. A method for obtaining a collectin homolog comprising screening for proteins that bind the antibody according to claim 82, and isolating a protein bound by the antibody.

86. The method according to claim 85, wherein said screening step comprises expressing a cDNA library and screening proteins encoded thereby.

87. A method of quantitative determination of a collectin and/or a homolog comprising contacting a sample suspected of comprising a collectin or homolog thereof with an antibody according to claim 82, and measuring an amount of the collectin and/or homolog contained therein from the quantity of antibody bound thereto.

88. The method according to claim 87, wherein said antibody is employed in an ELISA method.

89. An ELISA kit for quantitative determination of a collectin, comprising the antibody according to claim 82.

90. A method for isolating a collectin and/or a homolog thereof, comprising a step of contacting a sample that contains the collecting or homolog with the antibody according to claim 82.

91. The method according to claim 90, wherein the antibody is bound to a solid support, and wherein the contacting step comprises contacting the sample with the antibody to immunoprecipitate the collectin or homolog.

92. The method according to claim 90, wherein the antibody is bound to a solid support, and wherein the contacting step comprises an affinity chromatography step using the antibody bound to the solid support.

93. A method for making a collectin polypeptide, comprising steps of:
expressing a polynucleotide according to claim 38 that encodes a collectin polypeptide comprising an amino acid sequence selected from the group consisting of:
positions 229-547 of SEQ ID NO: 2; positions 226-547 of SEQ ID NO: 2; positions 211-547 of SEQ ID NO: 2; positions 206-547 of SEQ ID NO: 2; positions 102-547 of SEQ ID NO: 2; positions 91-547 of SEQ ID NO: 2; positions 9-547 of SEQ ID NO: 2; and positions 1-547 of SEQ ID NO: 2; and
purifying the collectin polypeptide using an antibody according to claim 82.

94. A non-human transgenic animal comprising a recombinant gene that comprises a polynucleotide according to claim 38, wherein the polynucleotide is stably integrated into a chromosome of the animal, and wherein the animal expresses the amino acid sequence encoded by the polynucleotide.